CLAIM AMENDMENTS

Claims 1 through 16 (canceled)

17. (New) A method of making a cryogenic solid monopropellant system out of a heterogeneous liquid-solid propellant, from reactants at least one of which is an oxidizer or fuel which contains a phase that is liquid or gaseous at standard temperature, which comprises the steps of:

(a) incorporating at least one liquid or gaseous phase reactant in the form of a fuel or oxidizer in a solid phase structure having hollow spaces which are connected to each other; and

(b) transforming the liquid or gaseous phase incorporated in the solid phase structure having hollow spaces connected to each other by freezing the liquid or gaseous phase into a stable cryogenic solid phase below standard temperature within the hollow spaces of the solid phase structure inside the combustion chamber to obtain a rocket propellant with improved storability while avoiding the need for liquid management and simultaneously eliminating need for permanent ignition thereof.

18. (New) The method of making a cryogenic solid monopropellant system defined in claim 17 wherein the at least one liquid or gaseous phase reactant is an emulsion of liquid components which are not soluble in one another.

19. (New) The method of making a cryogenic solid monopropellant system defined in claim 17 wherein the at least one liquid or gaseous phase reactant is a suspension of solid components in liquid components or liquid impregnated bulk materials or packings.

20. (New) The method of making a cryogenic solid monopropellant system defined in claim 17 wherein the solid phase structure having hollow spaces is an open pore foam.

21. (New) The method of making a cryogenic solid monopropellant system defined in claim 20 wherein the open pore foam is a foam of plastic or metal.

22. (New) The method of making a cryogenic solid monopropellant system defined in claim 21 wherein the foam of plastic or metal is a polyethylene foam, a polyurethane foam, a HTBP foam, a GAP foam, an aluminum foam, a magnesium foam, a beryllium foam, or a mixture of said plastic foam and said metal foam.

23. (New) The method of making a cryogenic solid monopropellant system defined in claim 17 wherein the solid phase structure having hollow spaces is a packing incorporated in a

casting material and composed of a polyethylene, polyurethane, HTPB, GAP, AP, aluminum, magnesium or beryllium.

24. (New) The method of making a cryogenic solid monopropellant system defined in claim 17 wherein according to step (a) the liquid phase is incorporated in the solid phase structure by immersion and/or impregnation thereof.

25. (New) The method of making a cryogenic solid monopropellant system defined in claim 17 wherein according to step (a) the liquid or gas phase reactant is oxygen, a hydrocarbon, hydrogen peroxide or an HEDM propellant.

26. (New) The method of making a cryogenic solid monopropellant system defined in claim 17 wherein according to step (b) the solid monopropellant is produced by freezing liquid fuel or oxidizer.

27. (New) The method of making a cryogenic solid monopropellant system defined in claim 26 wherein the liquid fuel or oxidizer is oxygen, a hydrocarbon, hydrogen peroxide or an HEDM propellant.

28. (New) The method of making a cryogenic solid monopropellant system defined in claim 17 wherein according to step (a) the liquid phase is initially encapsulated, then mixed with th the solid phase structure and bonded with the binder.

29. (New) The method of making a cryogenic solid monopropellant system defined in claim 17 wherein according to steps (a) and (b) the liquid phase is encapsulated and before freezing the liquid phase, the solid phase structure is mixed therewith, and both phases are frozen together.

30. (New) The method of making a cryogenic solid monopropellant system defined in claim 17 wherein according to step (a) combustion speed of the cryogenic solid monopropellant system is adjusted by selecting a special hollow space size in the solid phase structure.

31. (New) A stabilized cryogenic solid propellant for a rocket motor combustion chamber equipped with an inner isolation which comprises a solid or heterogeneous quasi-monergolic fuel oxidizer combination cooled to below ambient temperature, wherein at least one reactant for preparing said propellant is in a liquid or gaseous phase at standard temperature, and at least one reactant for preparing said propellant is in a solid phase structure having hollow spaces which are connected to each other, arranged at an inner isolation of the combustion chamber or completely filling the

latter, the solid phase structure having hollow spaces completely containing the liquid or gaseous reactant cryogenically transformed and stabilized as a cryogenic solid.

32. (New) The stabilized cryogenic solid propellant defined in claim 31 wherein the at least one reactant for preparing said propellant in a liquid or gaseous phase at standard temperature is an emulsion of liquid components not soluble in one another.

33. (New) The stabilized cryogenic solid propellant defined in claim 31 wherein the at least one reactant for preparing said propellant in a liquid or gaseous phase at standard temperature is a suspension of solid components in liquid components.

34. (New) The stabilized cryogenic solid propellant defined in claim 31 wherein the at least one reactant for preparing said propellant in a liquid or gaseous phase at standard temperature is a liquid impregnated packing.

35. (New) The stabilized cryogenic solid propellant defined in claim 31 wherein the solid phase structure having hollow spaces is an open pore foam.

36. (New) The stabilized cryogenic solid propellant defined in claim 35 wherein the open pore foam is a foam of plastic or metal.

37. (New) The stabilized cryogenic solid propellant defined in claim 36 wherein the foam of plastic or metal is a polyethylene foam, a polyurethane foam, a HTBP foam, a GAP foam, an aluminum foam, a magnesium foam, a beryllium foam, or a mixture of said plastic foam and said metal foam.

38. (New) The stabilized cryogenic solid propellant defined in claim 31 wherein the solid phase cryogenically transformed from the liquid or gaseous phase is comprised of a stable solid.

39. (New) The stabilized cryogenic solid propellant defined in claim 38 wherein the solid phase cryogenically transformed from the liquid or gaseous phase as a stable solid is transformed oxygen, hydrocarbons, hydrogen peroxide, or an HEDM propellant.

40. (New) The stabilized cryogenic solid propellant defined in claim 31 wherein the solid phase structure having hollow spaces is comprised of a packing of optionally shaped individual pieces whose hollow spaces are connected together in which a frozen liquid is contained as a reactant.

41. (New) The stabilized cryogenic solid propellant defined in claim 40 wherein the frozen liquid reactant is not in homogeneous form but itself is a packing which is mixed into the hollow space of the first packing.

42. (New) The stabilized cryogenic solid propellant defined in claim 31 wherein the solid phase structure having hollow spaces is provided with a protective coating which chemically insulates the solid phase structure from the reactant in the liquid or gaseous phase.